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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/668,396	09/22/2000	Jacek Stachurski	TI-29493	2375

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EXAMINER

NOLAN, DANIEL A

ART UNIT	PAPER NUMBER
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2654

DATE MAILED: 07/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/668,396

Applicant(s)

STACHURSKI ET AL.

Examiner

Daniel A. Nolan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 September 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

(Note that this application has been included in **Art Unit 2654**, and that this AU number should be used in all future correspondence.)

Response to Amendment

2. The response filed 17 March was entered to the following effect:
 - The changes to the specification were applied as indicated, and the addressed objections are withdrawn.

Response to Arguments

3. Applicant's arguments filed 17 March 2003 have been fully considered but they are not persuasive.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in

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the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) And *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In this case, In this case, the phase discontinuity of Gersho is replaced with the phase equalization of Honda as indicated (in column 3 line 45) to minimize distortion. The Examiner has expanded the rejection to separately indicate the specific elements of the features.

Specification

4. The abstract of the disclosure is objected to because the sentences are not complete. Correction is required. See MPEP § 608.01(b).

5. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification, such as

- The single-letter-word "a" must be removed from the 2nd line of the correction to page 3 (1st paragraph on page 3 of the response).

Appropriate correction is required.

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Claim Objections

6. Claim 3 is objected to because:

- Two features of claim 3 are labeled (c).
- The Examiner is proceeding with the understanding that the last should be (d).

Appropriate correction is required.

Claim Rejections - 35 USC § 103

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Gersho et al & Honda et al

8. Claims 1, 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gersho et al (U.S. Patent 6,233,550) in view of Honda et al (U.S. Patent 6,377,916).

9. Regarding claims 1 and 4 as understood by the Examiner, the *Hybrid Coding of Gersho et al* reads on the features of the immediate application as follows:

- Gersho et al (with the title) reads on the feature in the preamble, of a *hybrid speech encoder having a linear prediction (14 in figure 4A), pitch and voicing data (18, 44 & 46 in figure 4A)* but is silent that the combination *includes a zero-phase equalization filter*. Honda et al (column 1 lines 20-27) reads on the feature that the combination of *a linear prediction, pitch and, voicing analyzer includes a zero-phase equalization filter* (column 3 lines 27-33).

It would have been obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of Honda et al to the device/method of Gersho et al so as to process all parameters of speech without the complexities of alternatively associating low bit-rate waveform segments.

- Gersho et al (column 4 lines 5-15) reads on the feature particular to claim 4, of *(b) a parametric encoder coupled to the analyzer (termed vocoder)*.
- Gersho et al (claim 1 lines 62-63) reads on the features of a *waveform encoder coupled to the analyzer*.
- Where Gersho et al does not mention *a zero-phase equalization filter*, Honda et al (column 3 lines 27-33) reads on the feature where the *waveform encoder includes a zero-phase equalization filter*.

It would have been obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of Honda et al to the device/method of Gersho et al so as to reduce spectral distortion.

10. Regarding claim 2 as understood by the Examiner, the claim is set forth with the same limits as claim 1. Where Gersho et al does not mention a *zero-phase equalization filter*, Honda et al (column 3 lines 22-23) reads on feature (e) *said zero-phase equalization filter has coefficients determined by said analyzer* which would have made it obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of Honda et al to the device/method of Gersho et al to have the coded pitch position match the source impulse.

Gersho et al, Honda et al & Davis

11. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gersho et al in view of Honda et al and further in view of Davis (U.S. Patent 4230906).

12. Regarding claim 3 as understood by the Examiner, the *Hybrid Coding* of Gersho et al reads on the features of the immediate application as follows:

- Gersho et al (in the title) reads on the feature, of a *hybrid speech encoder*.

- While Gersho et al does not explicitly disclose the combination, Honda et al (column 1 lines 20-27) reads on feature (a) *a linear prediction, pitch and, voicing analyzer*.

It would have been obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of Honda et al to the device/method of Gersho et al so as to process all parameters of speech without the complexities of associating segments.

- Gersho et al (column 4 lines 5-15) reads on the feature particular to claim 4, of (b) *a parametric encoder coupled to the analyzer (termed vocoder)*.
- Gersho et al (claim 1 lines 62-63) reads on the features of *a waveform encoder coupled to the analyzer*.
- Where Gersho et al does not mention *a zero-phase equalization filter*, Honda et al (column 3 lines 27-33) reads on the feature where the *waveform encoder includes a zero-phase equalization filter*.
- Where Gersho et al associates voice with *strongly- and weakly-periodic voiced frames*, which would be subject to interpretation with regard to the features of this claim, with *parametric decoders*, Davis (column 7 lines 18-27) reads on the feature that *decodes zero-phase equalized weakly-voiced frames time-synchronized ("15" figure 1 & figure 8H) with parametric decoder decoded strongly-voiced frames*.

It would have been obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of

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Honda et al and Davis to the device/method of Gersho et al so as to reduce spectral distortion to characterize signals for different strategies in order to avoid misadjusting an extreme segment that could have been legitimate according to other processing perspectives.

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

14. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Daniel A. Nolan at telephone (703) 305-1368 whose normal business hours are Mon, Tue, Thu & Fri, from 7 AM to 5 PM.

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If attempts to contact the examiner by telephone are unsuccessful, supervisor Richemond Dorvil can be reached at (703)305-9645.

The fax phone number for Technology Center 2600 is (703)872-9314. Label informal and draft communications as "DRAFT" or "PROPOSED", & designate formal communications as "EXPEDITED PROCEDURE". Formal response to this action may be faxed according to the above instructions,

or mailed to: Box AF
 Commissioner of Patents and Trademarks
 Washington, D.C. 20231

or hand-delivered to: Crystal Park 2,
 2121 Crystal Drive, Arlington, VA,
 Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Technology Center 2600 Customer Service Office at telephone number (703) 306-0377.

Daniel A. Nolan
Examiner
Art Unit 2654

DAN/d
July 27, 2003


Richemond Dorvil
Primary Examiner